What Is Claimed Is:

1. A packet telephony appliance, comprising:

network processor that integrates networking and DSP functions, the network processor having a serial input port, a serial output port and a network interface;

an output device coupled to the serial output port;

an input device coupled to the serial input port; and

a network coupled to the network interface,

wherein the packet telephony appliance implements a unified buffering mechanism that provides zero-copy data movement, and

wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication.

2. The packet telephony appliance according to claim 1, wherein the network processor is a Euphony network processor.

3. The packet telephony appliance according to claim 2, wherein the packet telephony appliance is a Euphony ATM telephone (EAT).

4. The packet telephony appliance according to claim 2,

wherein the network is an ATM network, and

wherein the network interface is an ATM network interface.

5. The packet telephony appliance according to claim 1, wherein the output device includes at least one of a handset speaker, a case mounted speaker and an external speaker.

6. The packet telephony appliance according to claim 1, wherein the input device includes at least one of a handset microphone, a case mounted microphone and an external microphone.

7. The packet telephony appliance according to claim 1, wherein the packet telephony appliance runs a real-time operating system.

8. The packet telephony appliance according to claim 1, wherein the unified buffering mechanism is *IObufs*.

9. The packet telephony appliance according to claim 1, wherein the event-based mechanism for intra-appliance communication is an Event Exchange inter-module communication mechanism.

10. The packet telephony appliance according to claim 1, wherein the unified buffering mechanism and the event-based mechanism provide a scheme for integrated event/data delivery that accommodates new protocols and services.

11. The packet telephony appliance according to claim 1, further comprising:

RAM, Flash memory and a keypad coupled to the network processor via a memory and peripheral bus.

12. The packet telephony appliance according to claim 11, further comprising:

a plurality of RS232 serial ports coupled to the network processor via the memory and peripheral bus.

13. A method for providing system software services in a packet telephony appliance, comprising the steps of:

loading and executing a real-time single address space operating system kernel;

implementing a uniform buffering mechanism across all modules in the packet telephony appliance, the uniform buffering mechanism being a zero-copy mechanism for storing and passing data; and

implementing an event-based mechanism for communicating between the modules.

14. The method according to claim 13, wherein the step of load and executing includes the step of loading and executing a VxWorks kernel.

15. The method according to claim 13, wherein the step of implementing the uniform buffering mechanism includes the step of implementing *IObufs*.

16. The method according to claim 13, wherein the step of implementing the event-based mechanism includes the step of implementing an Event Exchange inter-module communication mechanism.

17. The method according to claim 13, wherein the step of implementing the event-based mechanism includes the steps of creating a sending port and a receiving port for each module, initializing the sending ports and the receiving ports before use, setting a queue size of the sending ports to control flow, posting events to the sending port of a sending module, and delivering posted events to the receiving port of a receiving module.

18. The method according to claim 17, wherein the step of implementing the event-based mechanism further includes the steps of processing delivered events and issuing an acknowledgment.

19. The method according to claim 13, wherein the step of implementing the event-based mechanism includes the step of processing events at a priority of a receiving thread.

20. The method according to claim 13, wherein the step of implementing the event-based mechanism includes decoupling a priority of a sender from a priority at which an event is processed.

21. A method for providing a packet telephony appliance, comprising the steps of:

integrating networking and DSP functions into a network processor;

implementing a uniform buffering mechanism across all modules in the packet telephony appliance, the uniform buffering mechanism being a zero-copy mechanism for storing and passing data; and

implementing an event-based mechanism for communicating between the modules.